

LAST RELOADED: Aug 5, 2005 (20050805/UP).

=> d his

(FILE 'HOME' ENTERED AT 10:09:39 ON 08 AUG 2005)

FILE 'BIOENG, BIOSIS' ENTERED AT 10:17:41 ON 08 AUG 2005

L1	1439 S (NUCLEIC ACID OR DNA OR SEQUENCING)/AB AND PORE/AB
L2	1346 DUP REM L1 (93 DUPLICATES REMOVED)
L3	923 S (ROTAT? OR OSCILLAT?)/AB AND ELECTRIC/AB
L4	3 S L2 AND L3
L5	13 S (ROTAT? OR OSCILLAT?)/AB AND L2
L6	2107 S (SEQUENC?)/AB AND PORE/AB
L7	2005 DUP REM L6 (102 DUPLICATES REMOVED)
L8	32 S L7 AND NANO?

FILE 'STNGUIDE' ENTERED AT 10:53:10 ON 08 AUG 2005

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

FULL ESTIMATED COST

ENTRY

SESSION

2.73

2.73

FILE 'BIOENG' ENTERED AT 10:17:41 ON 08 AUG 2005

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FILE 'BIOSIS' ENTERED AT 10:17:41 ON 08 AUG 2005

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=> s (nucleic acid or dna or sequencing)/ab and pore/ab

L1 1439 (NUCLEIC ACID OR DNA OR SEQUENCING)/AB AND PORE/AB

=> dup rem

ENTER L# LIST OR (END):l1

PROCESSING COMPLETED FOR L1

L2 1346 DUP REM L1 (93 DUPLICATES REMOVED)

=> s (rotat? or oscillat?)/ab and electric/ab

L3 923 (ROTAT? OR OSCILLAT?)/AB AND ELECTRIC/AB

=> s l2 and l3

L4 3 L2 AND L3

=> d l4 1-3 ti ab

L4 ANSWER 1 OF 3 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI Physical methods of nucleic acid delivery into cells and tissues.  
AB The human body possesses a system of barriers that prevents penetration of foreign molecules into cells and tissues. New methods of therapy require delivery of genetic material across these barriers. In response, over the past few decades physical, chemical and biological methods have been developed to deliver polar and charged macromolecules, including DNA, into cells and tissues with spatial and temporal targeting. This article reviews the physical methods of delivery, with special emphasis on electrical and acoustic treatment. Brief exposure to either an electric field or ultrasound at specific conditions can create meta-stable pores in biological membranes, which makes them temporarily permeable even to large macromolecules. This review presents detailed discussion of theory developed to describe transport of charged molecules through the skin in the presence of pulsed electrical treatment believed to cause electroporation and compares it to experimental data. The theory predicts that electrical treatment creates transient pores in the extracellular, multi-lamellar lipids of skin's outer layer of stratum corneum, which makes transport pathways through keratinocyte cells accessible. In contrast, the mechanism by which ultrasound permeabilizes cell and tissues is mediated by acoustic cavitation. Mechanical forces during cavitation bubble oscillation and collapse may transiently create pores in cell membranes. Overall, the experimental literature shows that electroporation and ultrasound are both effective to deliver DNA into cytoplasm of cells, but transfection efficiency may be limited by the inability of these methods to transfer DNA from cytoplasm to the nucleus.

L4 ANSWER 2 OF 3 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI Electric birefringence of kilobase-sized DNA molecules.  
AB Transient electric birefringence has been used to characterize the rotational diffusion of linear, circularly permuted pBR322 and SV40 DNA molecules. The birefringence relaxation times vary with the site of linearization, suggesting that the circularly permuted DNAs have different conformations in solution. The longest relaxation times are observed for DNA sequence isomers linearized at the major bend centers identified by gel electrophoresis.

SV40 sequence isomers linearized at other locations have faster, but approximately equal, terminal relaxation times, suggesting that their free solution conformations are relatively independent of the location of the bend center within the sequence. By contrast, the terminal relaxation times of the various pBR322 sequence isomers vary approximately in accord with their electrophoretic mobilities in large-pore polyacrylamide gels, suggesting that the different mobilities may reflect real conformational differences between the sequence isomers.

L4 ANSWER 3 OF 3 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
 TI BENT HELICAL STRUCTURE IN KINETOPLAST DNA.  
 AB The unusual physical properties of a restriction fragment of Leishmania tarentolae kinetoplast DNA were investigated. A gel-purified fragment comprising slightly more than half of a minicircle was determined by Maxam-Gilbert sequence determination to be 490 base pairs (bp) in length. This fragment has dramatically anomalous electrophoretic behavior; it has an apparent size of 450 bp on a 1% agarose gel but migrates as 1380 bp on a 12% polyacrylamide gel. However, in gel filtration on Sephacryl S-500, the fragment elutes with an apparent size of 375 bp. Finally, it behaves anomalously in electric dichroism experiments. Field-free rotational relaxation times from transient electric dichroism studies are highly sensitive to effective molecular dimensions. The rotational relaxation time of the kinetoplast fragment is smaller than that of a 309-bp control fragment from pBR322. Because rigorous control experiments rule out the possibility that this fragment is modified, these anomalous properties must be dictated by the sequence itself. Fragment behavior indicates that it has an unusually compact configuration; this molecule apparently contains a region of systematically bent B-DNA. This model accounts for the fragment's difficulty in snaking through the pores of a polyacrylamide gel, its ease in diffusing into Sephacryl beads, and its smaller rotational relaxation time. Bending of this molecule may be caused by periodicities in the DNA sequence.

=> s (rotat? or oscillat?)/ab and l2  
 L5 13 (ROTAT? OR OSCILLAT?)/AB AND L2

=> d 1-13 ti

L5 ANSWER 1 OF 13 BIOENG COPYRIGHT 2005 CSA on STN  
 TI Immobilization and Utilization of the Recombinant Fusion Proteins Trypsin-Streptavidin and Streptavidin-Transglutaminase for Modification of Whey Protein Isolate Functionality

L5 ANSWER 2 OF 13 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
 TI Effect of topological asymmetry on the electrophoretic mobility of branched DNA structures with and without single-base mismatches.

L5 ANSWER 3 OF 13 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
 TI Physical methods of nucleic acid delivery into cells and tissues.

L5 ANSWER 4 OF 13 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
 TI Microbial communities and their interactions in biofilm systems: an overview.

L5 ANSWER 5 OF 13 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
 TI Synchronization of interphase events depends neither on mitosis nor on cdk1.

L5 ANSWER 6 OF 13 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
 TI Structural studies of bacteriophage alpha3 assembly.

L5 ANSWER 7 OF 13 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
 TI Esc1, a nuclear periphery protein required for Sir4-based plasmid  
 anchoring and partitioning.

L5 ANSWER 8 OF 13 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
 TI Structure determination of the head-tail connector of bacteriophage phi29.

L5 ANSWER 9 OF 13 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
 TI The permeability of the wall fabric of Escherichia coli and Bacillus  
 subtilis.

L5 ANSWER 10 OF 13 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on  
 STN  
 TI Electric birefringence of kilobase-sized DNA molecules.

L5 ANSWER 11 OF 13 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on  
 STN  
 TI Analysis of the motA flagellar motor gene from Rhodobacter sphaeroides, a  
 bacterium with a unidirectional, stop-start flagellum.

L5 ANSWER 12 OF 13 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on  
 STN  
 TI Beta-Carrageenan: Isolation and characterization.

L5 ANSWER 13 OF 13 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on  
 STN  
 TI BENT HELICAL STRUCTURE IN KINETOPLAST DNA.

=> s (sequenc?)/ab and pore/ab  
 L6 2107 (SEQUENC?)/AB AND PORE/AB

=> dup rem  
 ENTER L# LIST OR (END):16  
 PROCESSING COMPLETED FOR L6  
 L7 2005 DUP REM L6 (102 DUPLICATES REMOVED)

=> 17 and nano?  
 L7 IS NOT A RECOGNIZED COMMAND  
 The previous command name entered was not recognized by the system.  
 For a list of commands available to you in the current file, enter  
 "HELP COMMANDS" at an arrow prompt (=>).

=> s 17 and nano?  
 L8 32 L7 AND NANO?

=> d 1-32 ti

L8 ANSWER 1 OF 32 BIOENG COPYRIGHT 2005 CSA on STN  
 TI Cloning, expression, and pore-forming properties of mature and precursor  
 forms of pleurotolysin, a sphingomyelin-specific two-component cytolysin  
 from the edible mushroom Pleurotus ostreatus

L8 ANSWER 2 OF 32 BIOENG COPYRIGHT 2005 CSA on STN  
 TI Sequence-specific detection of individual DNA strands using engineered  
 nanopores

L8 ANSWER 3 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
 TI Mitochondria permeabilization by a novel polycation peptide BTM-P1.

L8 ANSWER 4 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
 TI Removal of micro-particles by microbial granules used for aerobic  
 wastewater treatment.

L8 ANSWER 5 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI Transport of ions across peritoneal membrane.

L8 ANSWER 6 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI ~~Nanopore~~ unzipping of individual DNA hairpin molecules.

L8 ANSWER 7 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI Shape control through molecular segregation in giant surfactant aggregates.

L8 ANSWER 8 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI Microscopic kinetics of DNA translocation through synthetic ~~nanopores~~.

L8 ANSWER 9 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI Nucleic acid transport through carbon nanotube membranes. *Simulation*

L8 ANSWER 10 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI A **nanosensor** for transmembrane capture and identification of single nucleic acid molecules. *Specific comp. nucleic acid captures target*

L8 ANSWER 11 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI Pleurotolysin, a novel sphingomyelin-specific two-component cytolysin from the edible mushroom *Pleurotus ostreatus*, assembles into a transmembrane pore complex.

L8 ANSWER 12 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI Molecular dynamics simulations of a **nanopore** device for DNA sequencing. *Same as answer 8*

L8 ANSWER 13 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI **Nanopore** cheminformatics based on channel current blockades: Machine learning methods for classification and analysis of single-molecule blockade events. *machine learning*

L8 ANSWER 14 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI Minimalist model of biopolymer dynamics in a confined geometry.

L8 ANSWER 15 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI Molecular dynamics approach to calculate alpha-hemolysin ion currents.

L8 ANSWER 16 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI Using dynamic tension spectroscopy to explore destabilization of membranes by antimicrobial peptides.

L8 ANSWER 17 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI Pharmacologically active spider peptide toxins.

L8 ANSWER 18 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI DNA molecules and configurations in a solid-state **nanopore** microscope.

L8 ANSWER 19 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI **Nanofiltration** of single plasma donations: Feasibility study.

L8 ANSWER 20 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on  
STN  
TI Kinetics of duplex formation for individual DNA strands within a single  
protein **nanopore**.

L8 ANSWER 21 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on  
STN  
TI Mode of action of beta-barrel pore-forming toxins of the staphylococcal  
alpha-hemolysin family.

L8 ANSWER 22 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on  
STN  
TI Microsecond time-scale discrimination among polycytidylic acid,  
polyadenylic acid, and polyuridylic acid as homopolymers or as segments  
within single RNA molecules.

L8 ANSWER 23 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on  
STN  
TI Characterization of two pore-forming proteins isolated from the outer  
membrane of *Synechococcus* PCC 6301.

L8 ANSWER 24 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on  
STN  
TI Molecular dynamics simulation of a synthetic ion channel.

L8 ANSWER 25 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on  
STN  
TI Separation properties for oligosaccharides of **nanofiltration**  
membranes and its application to a purification process of Jerusalem  
artichoke oligosaccharides.

L8 ANSWER 26 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on  
STN  
TI Recombinant human granzyme A binds to two putative HLA-associated proteins  
and cleaves one of them.

L8 ANSWER 27 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on  
STN  
TI Interactions of cyclophilin with the mitochondrial inner membrane and  
regulation of the permeability transition pore, a cyclosporin A-sensitive  
channel.

L8 ANSWER 28 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on  
STN  
TI Structural model of a synthetic Ca-2+ channel with bound Ca-2+ ions and  
dihydropyridine ligand.

L8 ANSWER 29 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on  
STN  
TI Purification and characterization of porin from corn (*Zea mays* L.)  
mitochondria.

L8 ANSWER 30 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on  
STN  
TI PLASTICITY OF *ESCHERICHIA-COLI* PORIN CHANNELS DEPENDENCE OF THEIR  
CONDUCTANCE ON STRAIN AND LIPID ENVIRONMENT.

L8 ANSWER 31 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on  
STN  
TI TRACE METALS IN OXIC LAKE SEDIMENTS POSSIBLE ADSORPTION ONTO IRON  
OXYHYDROXIDES.

L8 ANSWER 32 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on

STN

TI KINETIC CHARACTERISTICS OF THE SULFATE SELF EXCHANGE IN HUMAN RED BLOOD CELLS AND RED BLOOD CELL GHOSTS.

=> d 1-32 ti

L8 ANSWER 1 OF 32 BIOENG COPYRIGHT 2005 CSA on STN

TI Cloning, expression, and pore-forming properties of mature and precursor forms of pleurotolysin, a sphingomyelin-specific two-component cytolysin from the edible mushroom *Pleurotus ostreatus*

L8 ANSWER 2 OF 32 BIOENG COPYRIGHT 2005 CSA on STN

TI Sequence-specific detection of individual DNA strands using engineered **nanopores**

L8 ANSWER 3 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

TI Mitochondria permeabilization by a novel polycation peptide BTM-P1.

L8 ANSWER 4 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

TI Removal of micro-particles by microbial granules used for aerobic wastewater treatment.

L8 ANSWER 5 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

TI Transport of ions across peritoneal membrane.

L8 ANSWER 6 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

TI **Nanopore** unzipping of individual DNA hairpin molecules.

L8 ANSWER 7 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

TI Shape control through molecular segregation in giant surfactant aggregates.

L8 ANSWER 8 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

TI Microscopic kinetics of DNA translocation through synthetic **nanopores**.

L8 ANSWER 9 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

TI Nucleic acid transport through carbon **nanotube** membranes.

L8 ANSWER 10 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

TI A **nanosensor** for transmembrane capture and identification of single nucleic acid molecules.

L8 ANSWER 11 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

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L8 ANSWER 12 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

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TI Molecular dynamics approach to calculate alpha-hemolysin ion currents.

L8 ANSWER 16 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

TI Using dynamic tension spectroscopy to explore destabilization of membranes by antimicrobial peptides.

L8 ANSWER 17 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

TI Pharmacologically active spider peptide toxins.

L8 ANSWER 18 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

TI DNA molecules and configurations in a solid-state **nanopore** microscope.

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TI **Nanofiltration** of single plasma donations: Feasibility study.

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TI Kinetics of duplex formation for individual DNA strands within a single protein **nanopore**.

L8 ANSWER 21 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

TI Mode of action of beta-barrel pore-forming toxins of the staphylococcal alpha-hemolysin family.

L8 ANSWER 22 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

TI Microsecond time-scale discrimination among polycytidylic acid, polyadenylic acid, and polyuridylic acid as homopolymers or as segments within single RNA molecules.

L8 ANSWER 23 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

TI Characterization of two pore-forming proteins isolated from the outer membrane of *Synechococcus* PCC 6301.

L8 ANSWER 24 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

TI Molecular dynamics simulation of a synthetic ion channel.

L8 ANSWER 25 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

TI Separation properties for oligosaccharides of **nanofiltration** membranes and its application to a purification process of Jerusalem artichoke oligosaccharides.

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TI Recombinant human granzyme A binds to two putative HLA-associated proteins and cleaves one of them.

L8 ANSWER 27 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

TI Interactions of cyclophilin with the mitochondrial inner membrane and regulation of the permeability transition pore, a cyclosporin A-sensitive



channel.

- L8 ANSWER 28 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI Structural model of a synthetic Ca-2+ channel with bound Ca-2+ ions and dihydropyridine ligand.
- L8 ANSWER 29 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI Purification and characterization of porin from corn (Zea mays L.) mitochondria.
- L8 ANSWER 30 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI PLASTICITY OF ESCHERICHIA-COLI PORIN CHANNELS DEPENDENCE OF THEIR CONDUCTANCE ON STRAIN AND LIPID ENVIRONMENT.
- L8 ANSWER 31 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI TRACE METALS IN OXIC LAKE SEDIMENTS POSSIBLE ADSORPTION ONTO IRON OXYHYDROXIDES.
- L8 ANSWER 32 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI KINETIC CHARACTERISTICS OF THE SULFATE SELF EXCHANGE IN HUMAN RED BLOOD CELLS AND RED BLOOD CELL GHOSTS.

=> d 6,9,10,12,13,18,22 ti

- L8 ANSWER 6 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI **Nanopore** unzipping of individual DNA hairpin molecules.
- L8 ANSWER 9 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI Nucleic acid transport through carbon **nanotube** membranes.
- L8 ANSWER 10 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI A **nanosensor** for transmembrane capture and identification of single nucleic acid molecules.
- L8 ANSWER 12 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI Molecular dynamics simulations of a **nanopore** device for DNA sequencing.
- L8 ANSWER 13 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI **Nanopore** cheminformatics based on channel current blockades: Machine learning methods for classification and analysis of single-molecule blockade events.
- L8 ANSWER 18 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI DNA molecules and configurations in a solid-state **nanopore** microscope.
- L8 ANSWER 22 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI Microsecond time-scale discrimination among polycytidylic acid, polyadenylic acid, and polyuridylic acid as homopolymers or as segments within single RNA molecules.

=> d 6,9,10,12,13,18,22 ibib

L8 ANSWER 6 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
ACCESSION NUMBER: 2005:62715 BIOSIS  
DOCUMENT NUMBER: PREV200500059222  
TITLE: Nanopore unzipping of individual DNA hairpin molecules.  
AUTHOR(S): Mathe, Jerome; Visram, Hasina; Viasnoff, Virgile; Rabin, Yitzhak; Meller, Amit [Reprint Author]  
CORPORATE SOURCE: Rowland Inst Harvard, Harvard Univ, Cambridge, MA, 02138, USA  
meller@rowland.harvard.edu  
SOURCE: Biophysical Journal, (November 2004) Vol. 87, No. 5, pp. 3205-3212. print.  
ISSN: 0006-3495 (ISSN print).  
DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 9 Feb 2005  
Last Updated on STN: 9 Feb 2005

L8 ANSWER 9 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
ACCESSION NUMBER: 2004:406665 BIOSIS  
DOCUMENT NUMBER: PREV200400409847  
TITLE: Nucleic acid transport through carbon nanotube membranes.  
AUTHOR(S): Yeh, In-Chul; Hummer, Gerhard [Reprint Author]  
CORPORATE SOURCE: Chem Phys LabNIH, NIDDKD, Bldg 5, Bethesda, MD, 20892, USA  
gerhard.hummer@nih.gov  
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (August 17 2004) Vol. 101, No. 33, pp. 12177-12182. print.  
ISSN: 0027-8424 (ISSN print).  
DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 20 Oct 2004  
Last Updated on STN: 20 Oct 2004

L8 ANSWER 10 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
ACCESSION NUMBER: 2004:348953 BIOSIS  
DOCUMENT NUMBER: PREV200400345493  
TITLE: A nanosensor for transmembrane capture and identification of single nucleic acid molecules.  
AUTHOR(S): Nakane, Jonathan; Wiggan, Matthew; Marziali, Andre [Reprint Author]  
CORPORATE SOURCE: Dept Phys and Astron, Univ British Columbia, Vancouver, BC, V5Z 1M9, Canada  
andre@physics.ubc.ca  
SOURCE: Biophysical Journal, (July 2004) Vol. 87, No. 1, pp. 615-621. print.  
ISSN: 0006-3495 (ISSN print).  
DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 18 Aug 2004  
Last Updated on STN: 18 Aug 2004

L8 ANSWER 12 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
ACCESSION NUMBER: 2004:147464 BIOSIS  
DOCUMENT NUMBER: PREV200400151866  
TITLE: Molecular dynamics simulations of a nanopore device for DNA sequencing.  
AUTHOR(S): Aksimentiev, Aleksij [Reprint Author]; Schulten, Klaus [Reprint Author]; Heng, Jiunn; Ho, Chuen; Timp, Greg

CORPORATE SOURCE: Beckman Institute, University of Illinois at  
Urbana-Champaign, Urbana, IL, USA  
SOURCE: Biophysical Journal, (January 2004) Vol. 86, No. 1, pp.  
480a. print.  
Meeting Info.: 48th Annual Meeting of the Biophysical  
Society. Baltimore, MD, USA. February 14-18, 2004.  
Biophysical Society.  
ISSN: 0006-3495 (ISSN print).  
DOCUMENT TYPE: Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)  
LANGUAGE: English  
ENTRY DATE: Entered STN: 17 Mar 2004  
Last Updated on STN: 17 Mar 2004

L8 ANSWER 13 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on  
STN  
ACCESSION NUMBER: 2004:147461 BIOSIS  
DOCUMENT NUMBER: PREV200400151863  
TITLE: Nanopore cheminformatics based on channel current  
blockades: Machine learning methods for classification and  
analysis of single-molecule blockade events.  
AUTHOR(S): Winters-Hilt, Stephen [Reprint Author]; Duda, Andrew; Lee,  
Clarence C.; Akeson, Mark  
CORPORATE SOURCE: Computer Science, University of New Orleans, New Orleans,  
LA, USA  
SOURCE: Biophysical Journal, (January 2004) Vol. 86, No. 1, pp.  
480a. print.  
Meeting Info.: 48th Annual Meeting of the Biophysical  
Society. Baltimore, MD, USA. February 14-18, 2004.  
Biophysical Society.  
ISSN: 0006-3495 (ISSN print).  
DOCUMENT TYPE: Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)  
LANGUAGE: English  
ENTRY DATE: Entered STN: 17 Mar 2004  
Last Updated on STN: 17 Mar 2004

L8 ANSWER 18 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on  
STN  
ACCESSION NUMBER: 2004:9412 BIOSIS  
DOCUMENT NUMBER: PREV200400011748  
TITLE: DNA molecules and configurations in a solid-state  
nanopore microscope.  
AUTHOR(S): Li, JiaLi; Gershow, Marc; Stein, Derek; Brandin, Eric;  
Golovchenko, J. A. [Reprint Author]  
CORPORATE SOURCE: Department of Physics, Harvard University, Cambridge, MA,  
02138, USA  
golovchenko@physics.harvard.edu  
SOURCE: Nature Materials, (September 2003) Vol. 2, No. 9, pp.  
611-615. print.  
ISSN: 1476-1122 (ISSN print).  
DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 24 Dec 2003  
Last Updated on STN: 24 Dec 2003

L8 ANSWER 22 OF 32 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on  
STN  
ACCESSION NUMBER: 2000:61243 BIOSIS  
DOCUMENT NUMBER: PREV200000061243  
TITLE: Microsecond time-scale discrimination among polycytidylic  
acid, polyadenylic acid, and polyuridylic acid as  
homopolymers or as segments within single RNA molecules.  
AUTHOR(S): Akeson, Mark [Reprint author]; Branton, Daniel;

CORPORATE SOURCE: Kasianowicz, John J.; Brandin, Eric; Deamer, David W.  
Chemistry Dept., University of Santa Cruz, Santa Cruz, CA,  
USA  
SOURCE: Biophysical Journal, (Dec., 1999) Vol. 77, No. 6, pp.  
3227-3233. print.  
CODEN: BIOJAU. ISSN: 0006-3495.  
DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 9 Feb 2000  
Last Updated on STN: 3 Jan 2002

=> FIL STNGUIDE

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

70.03

72.76

FILE 'STNGUIDE' ENTERED AT 10:53:10 ON 08 AUG 2005

USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT

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AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.

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